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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,396	03/16/2004	Hugo Lenhard-Backhaus	BP-94	3685

7590 02/10/2006

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EXAMINER

NI, SUHAN

ART UNIT PAPER NUMBER

2646

DATE MAILED: 02/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/802,396

Applicant(s)

LENHARD-BACKHAUS ET AL.

Examiner

Suhan Ni

Art Unit

2646

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2005.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-11 is/are pending in the application.
4a) Of the above claim(s) 10 and 11 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1 and 3-9 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

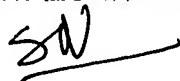
- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

SUHAN NI
PRIMARY EXAMINER

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

1. The Art Unit location of your application in the PTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Group **Art Unit 2646**.
2. This communication is responsive to the amendment filed **11/21/2005**.

Response to Election/Restriction

3. Applicant's provisional election made without traverse on 03/21/2005 to prosecute the invention of Group I, claims 1-9 is acknowledged. Group II, claims 10-11 are withdrawn from further consideration, as being drawn to a non-elected invention. A complete reply to a future final office action must include cancellation of non-elected claims or other appropriate action (37 CFR 1.144). See MPEP § 821.01.

Drawings

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitation of "wherein the upper and lower pole pieces are comprised of sheet steel having a thickness of **at least 1.5 times** an (the) average thickness of the bottom of the housing" in claim 1, and similar limitations **in other claims** must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing

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should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 and 3-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (U. S. Pat. App. – 2004/0105,568).

Regarding claim 1, Lee discloses a sound transducer, comprising: a housing (57) of deep drawn sheet metal having a bottom (Fig. 4); a magnet system including a magnet (51); a diaphragm (56) provided with a coil (53); wires extending from the coil to contacts inherently, wherein the housing has an outer diameter, the magnet system has a lower pole piece (50) and an upper pole piece (54), and the upper and lower pole pieces are comprised of sheet steel having a thickness of at least 1.5 times an average thickness of the bottom of the housing.

But Lee does not clearly teach the outer diameter of the housing is no greater than 20 mm as claimed. Since Lee does not specially restrict the size of the transducer, and does suggest to utilize the transducer in a miniature device (col. 2, [0022]), it therefore would have been obvious to one skilled in the art at the time the invention was made to be motivated to desirably miniaturize the sound transducer, such as the diameter being less than 18 mm as an alternate choice, in order to provide a suitable sound transducer for certain miniature applications, for example a mobile telephone as taught by Lee.

Furthermore, Lee does not clearly teach that said housing is comprised of thin sheet steel having an average thickness of maximally 0.2 mm as claimed. Since Lee does not specially restrict the thickness of the housing material of the transducer, and does suggest to utilize the transducer in a miniature device (col. 2, [0022]), it therefore would have been obvious to one skilled in the art at the time the invention was made to be motivated to desirably miniaturize the sound transducer, such as providing thin sheet metal material with thickness less than 0.2 mm as an alternate choice, in order to effectively and efficiently provide a suitable sound transducer for certain miniature applications, for example a mobile telephone as taught by Lee.

Regarding claims 3-4, Lee further discloses the sound transducer, wherein the upper and lower pole pieces have a thickness of at least 2-3 times the average thickness of the bottom of the housing (Fig. 4).

Regarding claims 5-6, Lee further discloses the sound transducer, wherein the lower pole piece (50) is part of a magnet pot whose peripheral area extends at least substantially to an upper surface of the upper pole piece (Fig. 4) and the lower pole piece is a monolithic part of the magnet pot as claimed.

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Regarding claims 7-9, Lee further discloses the sound transducer, wherein a wall thickness of the magnet pot is at least 1-3 times the average thickness of the bottom of the housing (Fig. 4) as claimed.

Response to Amendment


6. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Suhan Ni** whose telephone number is (571)-272-7505, and the number for fax machine is (571)-273-7505. The examiner can normally be reached on Tuesday and Thursday from 10:00 am to 8:00 pm, and may be reached on Monday, Wednesday and Friday from 10:00 am to 8:00 pm. If it is necessary, the examiner's supervisor, **Sinh N. Tran**, can be reached at (571)-272-7564.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (**PAIR**) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov/>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

9. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (571)-272-2600, or please see <http://www.uspto.gov/web/info/2600>.


SUHAN NI
PRIMARY EXAMINER